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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,508	09/22/2003	Stephane Betge-Brezetz	Q77451	5816
23373 7590 12/19/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER CHANKONG, DOHM	
			ART UNIT 2152	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/665,508

Applicant(s)

BETGE-BREZETZ ET AL.

Examiner

Dohm Chankong

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1> This action is in response to Applicant's amendments, filed 10.4.2007. Claims 1-19 are amended. Claims 1-19 are presented for further examination.

2> This is a final rejection.

#### *Response to Arguments*

3> Applicant's amends claim 1 to recite a first calculation module to include an extraction module that generates usage profiles for each of a plurality of service level agreements and an aggregation module that receives and aggregates the usage profiles. Applicant argues that Duffield does not teach these new elements. It should be noted that this argument has no force with respect to claim 17 which is simply a method claim and simply requires any element to generate the usage profiles.

Duffield discloses the newly added functionality. Duffield's access point [Figure 7] is interpreted as Applicant's first calculation module. Duffield discloses a resource usage measurement device [Figure 7 «item 340»] within the access point that generates usage profiles for each of a plurality of service level agreements [column 11 «lines 51-58»]. The measured information for each hose, which is associated with a different service level agreement, see column 11 «lines 22-32, reads on Applicants usage profile because measured information represents the usage of each of the hoses.

Further, Duffield discloses a prediction module within the access point [Figure 7 «item 350»] that receives and aggregates the usage profiles in order to determine a network

usage predictive state [column 11 «lines 58-65»]. The prediction module determines a network usage predictive state representative of usage of resources and/or services within said network.

Additionally, Applicant argues that Duffield does not disclose "how the predictive device 360 of Duffield is the structure that includes this claimed feature" (Applicant's remarks, pg. 10, ¶1). Duffield discloses an access point that performs the same functions as Applicant's first calculation module. Duffield's access point contains a measurement device that generates usage profiles and thus reads on the extraction module. Duffield's prediction module receives and aggregates the usage profile to determine a predictive state and thus reads on the aggregation module.

Based on the foregoing remarks, Applicant's amendment does not overcome the prior art references. Applicant's arguments with respect to claims 1 and 17 are therefore not persuasive. The rejection of the claims as set forth in the previous Office action are maintained.

4> Applicant has also amended claims 2 and 14 as recited complementary data comprising market research. Applicant's argument is moot in view of the new grounds of rejection necessitated by the amendment.

5> As to claims 9-13 and 15, Applicant requests further clarification as to the logical basis for the combination of the Duffield and Lewis references. Lewis is directed towards a management system "that optimizes configurations" of a network [column 2 «lines 56-60»].

Lewis was relied upon to teach receiving an optimum configuration associated with said predictive state to determine whether said network can support said optimum configuration and then, if it cannot, to determine the network plant liable to be disturbed by the evolution of the network corresponding to said predictive state.

It would have been common sense to one ordinary skill in the art to test a proposed optimum configuration prior to implementing the change in the network. Lewis discloses that such verification insures that the network actually operates optimally because some changes would not actually optimize the network [column 2 «lines 39-43»].

Applicant additionally asserts that Lewis fails to disclose determining whether a network plant is inadequate for future resource and or service requirements and that Lewis “makes no mention of *evolution of a network, corresponding to a predictive state*” (emphasis in original) [Applicant’s remarks, pg. 12, ¶1].

As to the latter argument, Duffield discloses the limitation of an evolution of a network that corresponded to a predictive state [column 10 «lines 47-55»]. As to the former, Lewis does disclose determining whether a network can support the optimum configuration [column 2 «lines 36-45»] and if a network cannot, determines whether a network plant is inadequate for service requirements [column 3 «lines 34-43» : Lewis discloses determining a capacity of the network | column 3 «line 62» to column 4 «line 3»]. The determination of whether a network plant is inadequate for service requirements is subsumed in the determination of whether a network can support a optimum configuration. In other words, in determining whether a network can support a optimum configuration, Lewis discloses

determining whether the network plant has adequate requirements to handle the configuration.

6> As to claim 11, Applicant argues that Duffield does not disclose minimizing the costs of network modification. Specifically Applicant asserts that Duffield's teachings are directed to cost savings from multiplexing rather than to delivering a planning proposal. Contrary to Applicant's argument, Duffield discloses the claimed limitations. The multiplexing is a result of the predicted proposals for evolving the network to handle current usage [column 10 «lines 56-67»]. Thus, Duffield discloses delivering a predicted proposal that minimizes the costs of modifying the network.

7> As to claim 12, Applicant argues that Duffield does not disclose planning rules. Applicant's specification describes an example of such a rule: "if a link is used more than 90%, then the capacity of that link must be increased by the appropriate amount" [Applicant's patented publication 2005|00177629, paragraph 58]. This example is essentially a service level agreement parameter. For example, Duffield discloses that if a capacity exceeds an upper bound threshold, then additional capacity should be allocated to the VPN [column 13 «lines 24-33»]. Thus, Duffield's disclosure of service level parameters, such as thresholds reads on Applicant's claimed planning rules.

8> Finally, Applicant argues that Duffield does not teach the features of claim 15. Specifically, Applicant asserts that Duffield does not disclose an operate entering "third

data" such as market research. Presumably, Applicant is arguing in reference to amended claim 14, not claim 15. Applicant's arguments are moot in view of the new ground of rejection necessitated by Applicant's amendment.

*Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9> Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 recites "the system further comprising..." but makes no reference to a parent claim on which the claim depends. Presumably, claim 19 is dependent on claim 1 or one of its dependent claims since they are system claims. However, it is unclear to which claim 19 is intended to depend.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10> Applicant's claims rely on some novel terminology such as "network usage predictive state," "network evolution planning proposal," and "service level agreement usage predictive profile." The examiner has done his best in interpreting these terms consistent with how they are defined in the specification.

For the sake of clarity and ease of understanding, it would be beneficial to incorporate the meanings or definitions of these novel terms into the claims. Of course, Applicant is not required to follow this suggestion but such clarifications would improve the claims.

11> Claims 1, 3-8 and 16-19 are rejected under 35 U.S.C §103(a) as being unpatentable over Duffield et al, U.S Patent No. 6,912,232 ["Duffield"].

12> As to claim 1, Duffield discloses a system for processing configuration data of a communication network, comprising:

a first calculation module [Figure 7], including:

an extraction module that generates usage profiles for each of a plurality of service level agreements [column 11 «lines 51-58»], and

an aggregation module that receives and aggregates said usage profiles [column 11 «lines 58-65»] and determines a network usage predictive state from first data representative of usage of resources and/or services within said network [column 10 «line 47» to column 11 «line 21» where : Duffield's prediction device is analogous to a first calculation module]; and

a second calculation module adapted to determine a network evolution planning



proposal from said usage predictive state and second data representative of a plant of said network [column 11 «line 51» to column 12 «line 30» | column 13 «lines 42-52»],

wherein said first calculation module is adapted to determine said usage profiles of said service level agreements between an operator of the network and customers from said first data and from said service level agreements [column 3 «line 63» to column 4 «line 24» | column 5 «lines 48-67» where : Duffield's hose profile is analogous to a usage profile].

Duffield does not expressly disclose the exact terms "planning proposal" but according to Applicant's specification, a proposal simply includes actions to be taken on the network plant (which is simply a device). Duffield discloses adaptively adjusting the network allocations, including increasing or decreasing bandwidth at a network device [column 8 «lines 45-61»]. This functionality recited by Duffield is analogous to the functionality of Applicant's claimed planning proposal.

13> As to claim 3, Duffield discloses said first calculation module is adapted to determine a service level agreement usage profile for each service level agreement [column 3 «lines 34-51» : hose profiles].

14> As to claim 4, Duffield discloses said first calculation module adapted to determine a service level agreement usage predictive profile constituting said network usage predictive state from said service level agreement usage profiles [column 6 «lines 41-53» | column 10 «lines 56-67» where : Duffield discloses aggregating hose profiles; this aggregate profile is analogous to Applicant's claimed predictive profile].

15> As to claim 5, Duffield discloses the first calculation module is adapted to determine a service level agreement usage predictive profile comparing said network usage predictive state from said service level agreement usage profiles [column 6 «lines 41-53» | column 10 «lines 56-67»]; and wherein said service level agreement usage predictive profile is determined from said third data and said service level agreement usage profiles [column 6 «lines 41-53» | column 10 «lines 56-67»].

16> As to claim 6, Duffield discloses said first data is chosen from a group comprising the current usage of resources and/or service of the network and at least a portion of the record of usage of the resources and/or service of said network [column 10 «lines 32-67»].

17> As to claim 7, Duffield discloses that said first calculation module is adapted to determine said service level agreement usage profiles by trend evolution analysis [column 12 «lines 17-29»].

18> As to claim 8, Duffield discloses that said third data is chosen in a group comprising the future types of service level agreements and future evolution of service subscriptions [column 7 «lines 13-15» where : Duffield's reliance on future virtual network usage is analogous to future evolution of service subscriptions].

19> As to claims 16 and 17, as they do not teach or further define over previously claimed limitations, they are similarly rejected for at least the same reasons set forth for claim 1.

20> As to claim 18, as it does not teach or further define over previously claimed limitations, it is similarly rejected for at least the same reasons set forth for claim 2.

21> As to claim 19, Duffield discloses a management system wherein said network is chosen from at least one of Internet, MPLS, ATM and Frame Relay networks [column 1 «lines 44-54»].

22> Claim 2 is rejected under 35 U.S.C §103(a) as being unpatentable over Duffield, in view of Applicant's admitted prior art ["admitted art"].

23> As to claim 2, Duffield discloses said first calculation module is adapted to determine said network usage predictive state from complementary third data representative of user requirement prediction information [column 3 «line 63» to column 4 «line 23» where : Duffield's QoS requirements are analogous to third data]. Duffield does not expressly disclose that the complementary third data comprises market research.

However, in the specification, Applicant admits that such the use of market research as data to determine network usage was well known in the art at the time of Applicant's invention [Applicant's patent publication 2005|00177629, paragraph 0005]. It would have been obvious to one of ordinary skill in the art to have modified Duffield's predictive system to

include market research. The addition of market research as a parameter in Duffield's calculations would enhance the reliability of the predicted network usage.

24> Claims 9-13 and 15 are rejected under 35 U.S.C §103(a) as being unpatentable over Duffield, in view of Lewis et al, U.S Patent No. 6,421,719 ["Lewis"].

25> As to claims 9 and 13, Duffield discloses said calculation module includes traffic engineering module adapted to determine an optimum configuration of the network from said second data describing the plant of said network and a usage predictive state and predictive state validation module adapted to supply said traffic engineering module with said predictive state delivered by said first calculation module [column 7 «line 16» to column 8 «line 61»] and an evolution of the network corresponding to said predictive state.

Duffield does not expressly disclose that on receiving an optimum configuration associated with said predictive state to determine whether said network can support said optimum configuration and then, when it cannot, to determine a network plant that is inadequate for future resource and/or service requirements.

Lewis discloses on receiving an optimum configuration associated with said predictive state to determine whether said network can support said optimum configuration and then, when it cannot, to determine a network plant that is inadequate for future resource and/or service requirements [column 5 «lines 10-19» | column 15 «lines 14-25» | column 16 «lines 23-28» | see also response to arguments above].

It would have been obvious to one of ordinary skill in the art to incorporate Lewis'

teachings of verifying optimized configurations at network devices to insure that they are operating properly into Duffield's network management system. Such a feature improves Duffield because it enables an operator to verify that configuration commands had been performed by the device and to determine whether the improvement of the device has actually improved. See also response to arguments above.

26> As to claim 10, Duffield discloses said second calculation module includes a planning determination module connected to a planning database and adapted to determine said planning proposal from the designation of the network plant that can be disturbed, and said planning data from said database [column 11 «lines 51-65» | column 12 «lines 17-52»].

27> As to claim 11, Duffield discloses that said planning determination module is adapted to deliver said planning proposal minimizing the costs of network evolution [column 1 «lines 64-67» | column 2 «lines 14-21» where : Duffield discloses achieving network efficiency which is analogous to minimizing costs. Also see response to arguments above].

28> As to claim 12, Duffield discloses that at least some of said planning data takes the form of planning rules [column 11 «lines 30-32» where : SLA parameters are analogous to planning rules].

29> As to claim 15, Duffield does not disclose a GUI. It should be noted however that the claim language "adapted to enable the definition of said third data...and the display of each

planning proposal” and “to enable an operator to monitor the validation of planning proposals” does not limit the claim’s scope because this language is merely directed towards the intended use of the GUI. See MPEP §2111.04. Only those claim elements that affect the structure of the claimed invention are given patentable weight. In other words, as long as a prior art reference teaches a GUI, definition of the third data, a planning proposal and validation of planning proposals, it is capable of the functionality of displaying those features as claimed by applicant.

Lewis discloses a GUI adapted to enable the definition of third data by an operator and the display of a planning proposal, wherein said GUI is adapted to enable an operator to monitor the validation of planning proposals [Figure 1B | column 5 «lines 10-19» | column 6 «lines 5-24»]. It would have been obvious to one of ordinary skill in the art to have incorporate Lewis’s GUI functionality into Duffield’s network management system. One would have been motivated to make such a combination to improve Duffield by providing an interface to define and view network information as taught by Lewis.

30> Claim 14 is rejected under 35 U.S.C §103(a) as being unpatentable over Duffield, in view of Mangipudi et al, U.S Patent No. 7,058,704 [“Mangipudi”], in further view of admitted art.

31> As to claim 14, Duffield does not expressly disclose a graphical user interface. However, GUIs are quite ubiquitous in the art. Mangipudi discloses a GUI that permits an operator input a definition of complementary third data representative of user requirement

prediction information and generates a display of each planning proposal [column 8 «lines 11-42»]. It would have been obvious to one of ordinary skill in the art to have incorporate Mangipudi's GUI functionality into Duffield's network management system. One would have been motivated to make such a combination to improve Duffield by providing an interface to define and view network information as taught by Mangipudi.

Duffield and Mangipudi do not disclose that complementary third data comprises market research. However, see the rejection of claim 2 for combination rationale. It would have been obvious to one of ordinary skill in the art to incorporated market research into Duffield and Mangipudi's GUI system to increase the reliability of Duffield's predictive system.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

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advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942. The examiner can normally be reached on Monday-Friday [8:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DC  
12/14/07

  
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